UNITED NATIONS

Framework Convention on Climate Change

Distr.
GENERAL

FCCC/IDR.1(SUM)/BUL
5 May 1998

Original: ENGLISH

SUMMARY

of the

REPORT ON THE IN-DEPTH REVIEW OF THE NATIONAL COMMUNICATION

of

BULGARIA

(The full text of the report (in English only) is contained in document FCCC/IDR.1/BUL)

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Also available on the World Wide Web (http:/www.unfccc.de)

GE.98-61178

Summary

1. Bulgaria ratified the Convention on 16 March 1995 and the secretariat received Bulgaria's first national communication on 11 March 1996. The in-depth review of the national communication was carried out during the period September 1996 to May 1997, including a country visit from 1 to 4 October 1996 to Sofia.

2. Although some economic reforms began in 1989, until 1991 virtually all sectors were government-controlled and, the process of liberalization and privatization has been rather slow. Since moving toward a market-based economy, Bulgaria has had to deal with the problem of overcoming a deep economic recession, which resulted in a decline in gross domestic product (GDP) of 25 per cent from 1989 to 1993. As in most of the countries with economies in transition, the economic changes have resulted in a significant decrease in the level of energy-related carbon dioxide (CO_2) emissions. Greenhouse gas (GHG) emissions in general are not expected to begin to increase in the near term, and are likely to remain substantially below the levels of Bulgaria's base year of 1988. Mostly on account of the economic decline and prevailing situation, Bulgaria is likely to meet its declared target of not exceeding base year GHG emission levels in 2000.

3. Bulgaria, referring to Article 4.6 of the Convention, has chosen 1988 as the base year rather than 1990 as recommended by the Conference of the Parties. Nonetheless, for comparison purposes emissions for 1990 are also provided in the national communication. Aggregated GHG emissions for 1988 are equivalent to 141,347 Gg of CO_2. CO_2 accounts for the largest percentage, 68.5 per cent, of total GHG emissions. CH_4 represents 24.5 per cent and N_2O only 7 per cent. Emissions of the three gases from the energy sector alone constituted 72 per cent of all GHGs, and within the energy sector, emissions from fuel combustion accounted for 92 per cent of total emissions. Preliminary estimates show that by the time of the visit aggregated GHG emissions have declined by 36 per cent compared to 1988.

4. Among the climate change measures already in place, the most important ones are based on the Environmental Protection Act which was adopted in 1991 and amended in 1992. It is a comprehensive act specifying the responsibilities of government bodies at both the national and local levels with regard to environmental protection. The Clean Air Act sets out series of ordinances to reduce emissions and to fix air pollution levels. These ordinances, some of which are still being drawn up, will address such issues as licensing, regulation of emissions from large stationary installations, and establishment of a national air quality control system.

5. The National Energy Strategy, adopted by the Government in 1995 aims to ensure the rational use of indigenous and imported energy supplies, existing energy systems and other resources in the energy sector. Bulgaria is using least-cost planning tools to set the priorities for future capacities for energy supply. The priorities set forth by these scenarios would be, first, the rehabilitation of existing utilities, then the construction of new capacities to replace the thermal power plant at Maritza (2x230 MW and desulphurization), and the completion of the nuclear

power plant in Belene (2x600 MW), whose construction was frozen in 1990 due to a lack of financial resources. With respect to the long-term potential of renewable energy in Bulgaria, the Ministry of Energy estimates a potential supply of 5 per cent from renewables (including hydropower). Although the implementation of the new energy efficiency law has been delayed, many of the existing energy efficiency regulations are considered adequate. There are presently regulations and standards relating to specific energy consumption, fuel combustion processes, electric appliances and space heating and insulation. During the review information on current standards was provided and, in particular, extensive materials were made available to the team on the existing building insulation standards. On account of the economic and social situation in Bulgaria, the team was informed that the Government had problems with liberalizing heat and electricity prices as the estimated cost to society would be too great.

6. The three scenarios used in the projections were the baseline scenario, mitigation scenario and energy policy scenario. The baseline, more or less business-as-usual, scenario incorporates all policies and measures introduced before 1993. The mitigation, or energy efficiency, scenario implies macroeconomic restructuring, penetration of new energy-efficient technologies and a restructuring of the energy supply sector. Under the mitigation scenario a higher degree of foreign investment and indebtedness in the mid-term (in relation to GDP and in absolute terms) is expected owing to the import of new technologies. The energy policy scenario is consistent with the long-term goals of the Bulgarian energy sector as outlined in the National Energy Strategy. All three scenarios were projected for the period 1992-2020 for CO_2, and the baseline and mitigation scenarios were projected for N_2O, CH_4, CO, NO_x and NMVOCs. According to the results of the projections for the various scenarios, Bulgaria will meet its target of not exceeding the 1988 level of GHG emissions in 2000. However, the projections indicate a more rapid increase in emissions after 2000, and even in the case of the mitigation scenario emissions are expected to reach the level of the base year by 2020.

7. Efforts to maintain forest areas and sustain the high level of sink capacity are viewed as a vital aspect of Bulgaria's future adaptation to climate change. The Government's strategy for the forestry sector, in particular the draft Forestry Development Strategy, is designed to cultivate the forest areas in a suitable manner allowing for adaptation to and limitation of impacts of climate. However, recent legislation allows for the privatization of some state-owned forests. Given Bulgaria's substantial area of forests, more than 3,500 million hectares, the vulnerability of forests to climate change is of great interest. Results of recent studies indicate that forest vegetation would be vulnerable to the expected changes in climate brought about by a doubling of CO_2 emission levels. The studies made show that the expected doubling of CO_2 would have a significant impact on agricultural production. The two main crops in Bulgaria, maize and wheat, would be adversely affected, with decreased yields for maize possibly as high as 30 per cent and for wheat 17 per cent.

8. Bulgaria looks favourably upon the concept of activities implemented jointly and joint implementation of commitments as an efficient mechanism for cost-effective reduction of global

emissions while facilitating the process of technology transfer to both developing countries and countries with economies in transition.

9. Climate research is focused on climate variations and its effects, creation of climate-related databases, improvement of climate and environmental monitoring and observation systems, and analysis and optimization of the use of weather and climate as natural resources. These activities include various studies and programmes, such as studies on vulnerability and adaptation, droughts in the Balkan peninsular region, sea-level rise, and application and testing of models related to climatic behaviour and effects of climate change.

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